

Claims

1. A conveyor mat, comprising a number of plastic modules successive in conveying direction which are each provided at a front and rear side with a row of projections extending transversely to the conveying direction, provided with hinge holes with recesses located therebetween, the projections
5 cooperating with recesses of adjoining modules, while hinge loops of successive modules are coupled with the aid of hinge pins reaching through the hinge holes, transversely to the transport direction, the hinge pins being included with clearance in oversized hinge holes of projections at the front and/or the rear side, **characterized in that** at least two successive modules are
10 interconnected via an intermediate element which is borne on a hinge pin and which is bearing mounted so as to be pivotal substantially transversely to the hinge pin in a bearing opening formed in one of the modules.
2. A conveyor mat according to claim 1, wherein the intermediate element is provided with a casing surface which is at least partly cylindrical or
15 conical for cooperation with a corresponding surface of the bearing opening.
3. A conveyor mat according to claim 1 or 2, wherein the intermediate element is provided with a bore extending transversely to the pivot of the intermediate element for including the hinge pin.
4. A conveyor mat according to claim 3, wherein the bore is provided
20 with an abutting surface of at least partly cylindrical or conical form for cooperation with the surface of the hinge pin.
5. A conveyor mat according to any one of the preceding claims, wherein the intermediate element is provided with a guide cam extending downwards at an underside of the module.
- 25 6. A conveyor mat according to claim 5, wherein the guide cam is provided with an idler wheel.

7. A conveyor mat according to any one of the preceding claims, wherein modules which are interconnected via intermediate elements form a chain extending in conveying direction.

8. A conveyor mat according to any one of the preceding claims,
5 wherein the bearing openings and intermediate elements are located adjacent a side edge of the mat.

9. A conveyor mat according to any one of the preceding claims, wherein transversely to the conveying direction, several modules have been included in the mat and wherein the bearing openings with the intermediate
10 elements have been provided in end modules provided at the longitudinal edge of the mat.

10. A conveyor mat according to any one of the preceding claims, wherein further, a substantially U-shaped reinforcement bracket is provided surrounding the bearing opening and whose free ends are provided with holes
15 for cooperation with a hinge pin reaching through the holes.

11. A conveyor mat according to claim 10, wherein adjacent the closed end surrounding the bearing opening, the bracket is provided with oversized holes for contactlessly guiding a further hinge pin.

12. A conveyor mat according to any one of the preceding claims,
20 wherein at least a number of the projections are formed by hinge loops reaching outwards relative to a central carrier of a module.

13. A conveyor mat according to any one of the preceding claims, wherein the distance between the outermost central axes of the hinge loops is constant.

25 14. A conveyor mat according to any one of the preceding claims, wherein at least one of the modules is provided with a central carrier, a part of which, located, during use closer to the center in conveying direction, is narrower than a part located during used closer to the side edge so that in conveying direction, the recesses between the hinge loops are deeper in the
30 first part than in the second part.

15. A conveyor mat according to any one of the preceding claims, wherein at least one of the modules provided with a bearing opening is provided with at least one projection with two hinge holes which enclose the bearing opening.

5 16. A conveyor mat according to any one of the preceding claims, wherein, during use, at least one of the modules is provided with a hinge pin secured against rotation, preferably a hinge pin fixed in hinge holes located on both sides of a bearing opening.

10 17. A conveyor mat according to claim 14 or 15, wherein the module is provided with further hinge holes for including at least one further hinge pin.

18. A module for a modular conveyor mat, comprising a body element provided at the front and the rear side with a row of projections provided with hinge holes, with recesses located therebetween, **characterized in that** the module is provided with a bearing opening for bearing mounting an
15 intermediate element so as to be pivotal relative to a pivot extending substantially transversely to a central axis through one of the rows of hinge holes.

19. A module according to claim 18, wherein in the bearing opening, an intermediate element is included.

20 20. A module according to claim 18 or 19, wherein the bearing opening is enclosed between two hinge holes.

21. A conveyor mat according to claim 20, wherein in addition to at least one of the hinge holes enclosing the bearing opening, on the other side of the bearing opening, a number of further projections with hinge holes is formed.

25 22. A module according to any one of preceding claims 18 – 21, wherein the module is further provided with a substantially U-shaped reinforcement bracket surrounding the bearing opening and whose free ends are provided with holes located in the row of hinge holes at the front or rear side of the module.

23. A module according to any one of preceding claims 18 – 22, wherein the distance between the outermost central axes of the row of hinge holes is substantially constant and wherein at least a number of the projections is formed by hinge loops reaching forward and backward, respectively, relative to the central carrier, while a part located, during use, closer to the center of the conveyor mat of the central carrier is narrow in conveying direction than a part located during use closer to the side edge of the central carrier so that the recesses between the hinge loops at the first part are deeper in conveying direction than at the second part.